SERVICE MANUAL & PARTS LIST (without price)

SF-5580RS/5780RS(ZX-460)

JAN. 1998

SF-5780RS

INDEX

CASIO®

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1. SPECIFICATIONS

■ Model: SF-5580RS/SF-5780RS

Main Modes:
Telephone Directory, Memo, Schedule Keeper, To Do, Expense Manager, Reminder, Calendar, Home Time, World Time, Calculator, Conversion (metric/currency) and Game (Poker/21)

Data storage:
Storage and recall of telephone, memo, schedule, to do, expense, reminder data; calendar display; editing; memory status display

Clock:
World time; reminder alarm; schedule alarm; daily alarm; accuracy under normal temperatures: ±3 seconds average

Calculation:
12-digit arithmetic calculations; independent memory; percentages; square roots; other mixed calculations

■ General:

Display element: 26-column × 8-line LCD

Memory capacity:
SF-5580RS: 128 KB
SF-5780RS: 256 KB

Main component: LSI

Power supply:
Main: Two AAA-size alkaline batteries (Type: LR03 (AM4))
Back-up: One CR2032 lithium battery

Battery life:
Main:
- Approximately 130 hours of continuous display only in Telephone Directory Mode.
- Approximately 90 hours with 55 minutes of continuous display only and 5 minutes of processing operation per hour.
- Approximately 80 hours with 55 minutes of continuous display only and 5 minutes of processing operation per hour, plus 3 minutes of backlight operation per hour during continuous display only period.

Back-up: Approximately 5 years if main batteries are replaced as soon as they become weak. Approximately 2 years if dead main batteries are left in the unit.

Power consumption: 0.25 W

Current consumption:
Main (Input voltage = 3.0 V):
Telephone top menu (Backlight doesn't shine)- 4.3 mA (TYP.)/5.3 mA (MAX.)
Telephone top menu (Backlight shine)- 27 mA (TYP.)/38 mA (MAX.)
OFF (Using Mask ROM: regular)- 90 μA (TYP.)/130 μA (MAX.)
OFF (Using Flash ROM: irregular)- 120 μA (TYP.)/160 μA (MAX.)
Back-up (Input voltage = 3.0 V): 2.4 μA (TYP.)/10 μA (MAX.)

Auto power off: Approximately 3 minutes after last key operation

Operating temperature: 0 °C ~ 40 °C (30 °F ~ 104 °F)

Dimensions:
Unfolded: 8.8 H × 163 W × 169 D mm ($^{3}/_{8}$ "H × $6^{7}/_{16}$ "W × $6^{5}/_{8}$ "D)
Folded: 21.5 H × 163 W × 91.5 D mm ($^{7}/_{8}$ "H × $6^{7}/_{16}$ "W × $3^{5}/_{8}$ "D)

Weight: Approximately 250 g (8.8 oz) including batteries

■ Memory Capacity

Memory capacity differs according to model.

Model **Memory**

SF-5580RS: 128 KB
SF-5780RS: 256 KB

The following shows the number of items that can be stored in each model.

Telephone Directory

8-character name, 10-character Phone (ТЕЛЕФОН) 1 number
SF-5580RS/SF-5780RS: 4,500/10,000

8-character name, 10-character Phone (ТЕЛЕФОН) 1 number, 20-character address (АДРЕС)
SF-5580RS/SF-5780RS: 2,300/5,000

Memo

20-character memo
SF-5580RS/SF-5780RS: 3,900/8,500

To Do

20-character description
SF-5580RS/SF-5780RS: 3,600/8,000

Schedule Keeper

20-character description, alarm time setting
SF-5580RS/SF-5780RS: 3,000/6,600

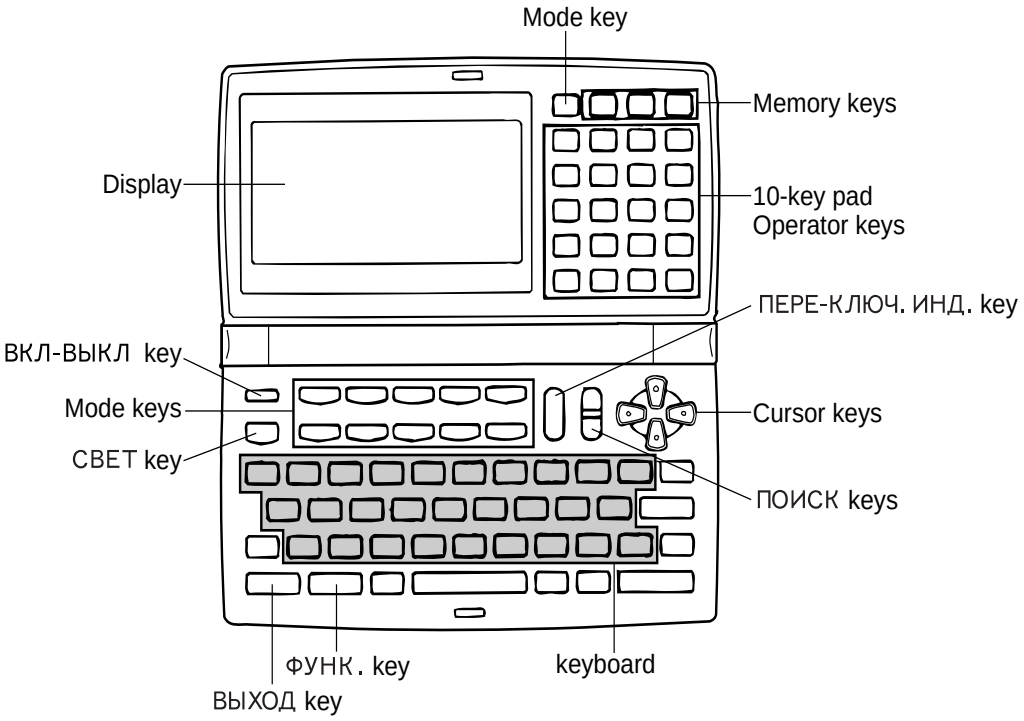
Reminder

10-character description
SF-5580RS/SF-5780RS: 4,200/9,200

Expense Manager

10-character description
SF-5580RS/SF-5780RS: 4,000/8,900

2. GENERAL GUIDE



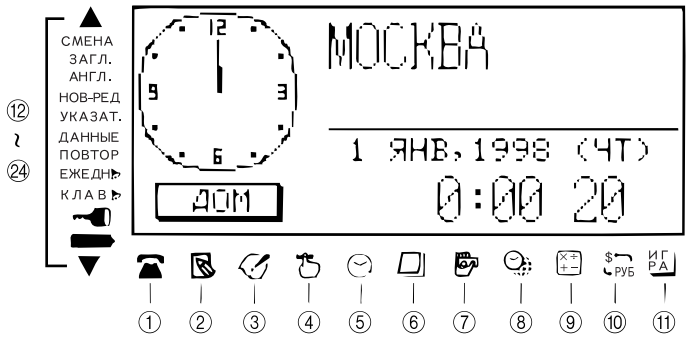
2-1. Appearances and display indicators

When lighting is dim, you can turn on an EL (electro-luminescent) backlight for easier viewing.

■ To turn on the EL backlight

There are two ways to turn on the backlight of the display. Pressing **СВЕТ** causes the backlight to turn on for about 15 seconds, and then turn off automatically. Pressing **СМЕНА** and then **СВЕТ** also turns on the backlight, but in this case the backlight stays on as long as you keep performing key operations on the Digital Diary. The backlight turns off automatically if you do not perform any key operation for about 15 seconds.
Leaving the backlight on for long periods greatly reduces battery life!
You can manually turn the backlight off by pressing **СВЕТ** again.
Failure of the backlight to turn on indicates low battery power. Replace batteries as soon as possible.

■ **Display Indicators**



① Telephone Directory Mode
② Memo Mode
③ To Do Mode
④ Reminder Mode
⑤ Schedule Keeper Mode
⑥ Calendar Mode
⑦ Expense Manager Mode
⑧ Home Time/World Time Mode
⑨ Calculator Mode
⑩ Conversion Modes
⑪ Game Modes
⑫ Indicates data above
⑬ СМЕНА (SHIFT) key operation
⑭ Upper-case input
⑮ АНГЛ.-РУС. (ENGLISH/RUSSIAN) key operation
⑯ НОВ-РЕД (NEW/EDIT) screen
⑰ Index display
⑱ Data display
⑲ Snooze feature activated
⑳ Daily alarm on
㉑ Key sound on
㉒ Memory locked
㉓ Low battery warning
㉔ Indicates data below

2-2. Power Supply

Your Digital Diary is powered by two AAA-size batteries, and its memory is protected by a single CR2032 lithium battery.

■ **Low battery Warning**

Failure of anything to appear on the display after you turn on power or appearance of the low battery message, "ГЛАВНЫЕ БАТАРЕИ СЕЛИ! ЗАМЕНИТЕ! АППАРАТ БОЛЬШЕ НЕ ВКЛЮЧИТСЯ!" (followed by the display turning off in about 10 seconds) normally indicates that main battery power is low.

Note, however, that pressing the **S T A R T** button on the back of the unit and then performing steps 1 and 2 of the procedure under "When to press **H** for "no"" above can sometimes restore normal operation. When the low battery message appears on the display even if you perform these steps, it means you should replace the main batteries as soon as possible.

Note

- Take care that you do not make a mistake and delete memory contents at this time.

Important!

- Replace batteries only when low battery power is indicated by failure of the Digital Diary to turn on when you press the **В К Л** key. Do not replace batteries as long as the Digital Diary turns on normally when you press the **В К Л** key.
- There is no low battery warning for the back-up battery. Be sure to replace the back-up battery once every 5 years.
- Be sure you keep a separate copy of all important data that you store in the Digital Diary.

■ Battery Precautions

Incorrectly using batteries can cause them to burst or leak, possibly damaging the interior of the Digital Diary. Note the following precautions.

- Be sure that the positive (+) side of each battery is facing in the correct directions.
- Never mix batteries of different types.
- Never mix old batteries and new ones.
- Do not expose batteries to direct heat, let them become shorted, or try to take them apart.
- Never leave dead batteries in the battery compartment.
- Remove batteries if you do not play to use the unit for a long time.
- Replace batteries at least once every five years, no matter how much you use the unit during that period.
- Never try to recharge the batteries that come with the unit.
- Should a battery leak, clean out the battery compartment of the unit immediately, taking care to avoid letting battery fluid come into direct contact with your skin.

Keep batteries out of the reach of small children. If swallowed, consult with a physician immediately.

2-3. EL backlight

- This unit is equipped with an EL backlight that allows easy viewing of display contents in a theater, or anywhere else where lighting is dim.
- Note, however, that frequent or extended use of the EL backlight shortens battery life.

The following shows how backlight use affects battery life under controlled test conditions.*

Backlight Operation	Battery Life
3 minutes per hour	Approximately 80 hours
15 minutes per hour	Approximately 45 hours

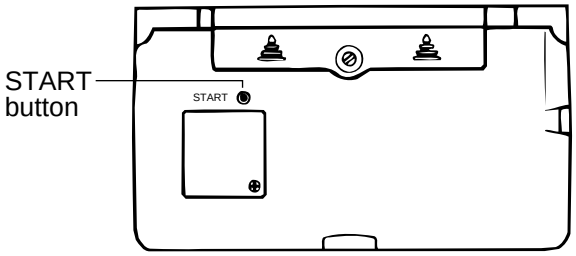
* **Test Conditions**

- “Battery Life” is the number of hours before battery failure when the unit is left on with 5 minutes of a processing operation and 55 minutes of continuous display only (no processing operation) per hour, plus the backlight operation described below.
- “Backlight Operation” is the number of minutes the backlight is turned on per hour during the display only (no processing operation) period.

3. RESET OPERATION

Use the following procedure to reset the unit to its initial settings.

Important!
- Do not use a very sharp pencil or other object to press the **S T A R T** button.
- Be sure to reset the unit before using it for the first time.
- Perform the reset operation only after main batteries and back-up battery are correctly installed.
- Be sure to press the **S T A R T** button after loading main batteries for the first time or if the previous set of batteries went dead.



■ To start the all-reset operation

1. Turn power off.
2. Press the **S T A R T** button on the back of the Digital Diary with a thin, pointed object.

3. Now you should press **Д** for “yes” or **Н** for “no” in accordance with the conditions described below.

When to press Д for “yes”
- When this is the first time you are using the unit.
- When you want to reset the unit and clear all data and settings.
- When you are resetting the unit after a data error (page 14).

1. Press **Д** in response to the message that appears on the display when you start the all-reset operation.

2. Press **И С П.** to reset the Digital Diary or **В Ы Х О Д** to abort.
- At this time the message “ВЫСТАВИТЬ ВРЕМЯ!” appears.
- After about two seconds, the Home Time screen appears.

3. Press **ФУНК.**, select "ВЫСТАВЛЕНИЕ ВРЕМЕНИ", and then use the procedure on page 18 of the User's Manual to set the Home Time.

• If you turn power off without setting the Home Time, the "ВЫСТАВИТЬ ВРЕМЯ!" message appears the next time you turn power on. The Digital Diary will not operate properly until you set the Home Time.

When to press Н for "no"

• After replacing the main batteries.
• When you are not resetting the unit to clear all data and settings.
• When you are not resetting the unit after a data error (page 14).

1. Press **Н** in response to the message that appears on the display when you start the all-reset operation.

• At this time the message "ВЫСТАВИТЬ ВРЕМЯ!" appears.
• After about two seconds, the Home Time screen appears.

2. Press **ФУНК.**, select "ВЫСТАВЛЕНИЕ ВРЕМЕНИ", and then use the procedure on page 18 of the User's Manual to set the Home Time.

• If you turn power off without setting the Home Time, the "ВЫСТАВИТЬ ВРЕМЯ!" message appears the next time you turn power on. The Digital Diary will not operate properly until you set the Home Time.
• Following are the initial settings of the unit after you perform the all-reset operation.

Home Time:	МОСКВА (Moscow) 1ЯНВ (January), 1998 (ЧТ (Thursday) 0:00 24-hour format
World Time:	ЛОНДОН (London)
Daily Alarm:	0:00
Sound:	Daily alarm — OFF Key — ON
Keyboard:	Cyrillic
Character input:	CAPS — OFF

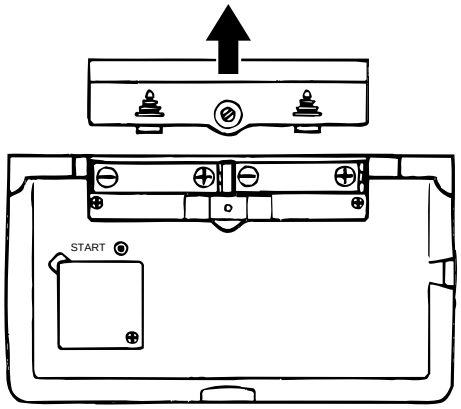
4. BATTERY REPLACEMENT

■ To replace the main battery

Important!

- Do not remove the main batteries from the Digital Diary while the back-up battery is removed.
- Be sure to replace both batteries with two new ones. Do not mix an old battery with a new one.
- Be sure to press the **S T A R T** button after loading main batteries for the first time or if the previous set of batteries went dead.
- Replace batteries only when low battery power is indicated by failure of the Digital Diary to turn on when you press the **В К Л** key. Do not replace batteries as long as the Digital Diary turns on normally when you press the **В К Л** key.

1. Press **В Ы К Л** to turn power off.
2. Remove the screw that holds the battery compartment cover in place and open the cover.



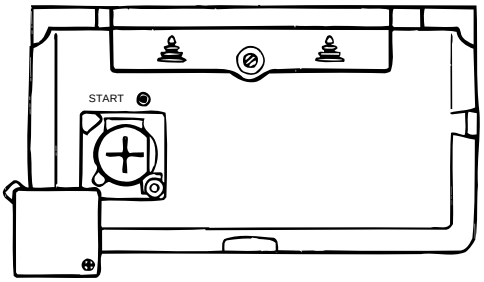
3. Remove both old batteries and replace them with new ones.
   - Make sure that the positive (+) and negative (–) ends are facing correctly.
4. Replace the battery compartment cover and secure it with its screw.
   - Take care that you do not overtighten the screw.
5. Press the **S T A R T** button.
   - This causes the message “ВПЕРВЫЕ ЛИ ВЫ РАБОТАЕТЕ С НОВЫМ АППАРАТОМ? (Д/Н)” to appear. Be sure to press **Н** in response to this message (pressing **Д** will delete all data in memory). Next, continue with the procedures in the section title “**3. RESET OPERATION**” on page 6.

■ To replace the back-up battery

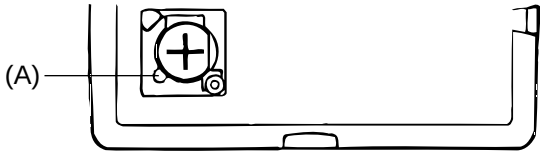
Important!

- Do not remove the back-up battery from the Digital Diary while the main batteries are removed.
- Be sure to replace the back-up battery at least once every 5 years. Otherwise, you run the risk of losing data stored in memory.

1. Press **В Ы К Л** to turn power off.
2. Remove the screw that holds the back-up battery compartment cover in place and open the cover.



3. Insert a thin, pointed object into (A) and remove the old battery.



4. Load a new battery into the compartment, making sure that its positive side is facing up (so you can see it).
5. Replace the battery compartment cover and secure it with its screw.
   - Take care that you do not overtighten the screw.

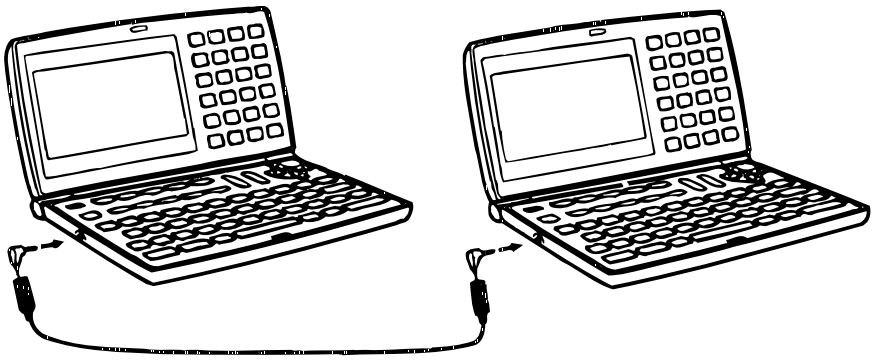
5. DATA COMMUNICATIONS

■ Setting Up for Data Communications

The following describes what you would do to set up for data communications between two Digital Diary units.

To connect to another Digital Diary unit

1. Make sure that the power of both units is turned off.
2. Open the covers of the data communications jacks of the two Digital Diary units.
3. Connect the two units using the SB-62 cable.



Important!

- Be sure to replace the connector covers on the Digital Diary units when you are not performing data communications.

■ DATA TRANSMISSION FROM A UNIT TO ANOTHER UNIT

Performing the following procedure, you can transfer the data from a unit (S) for sending to another unit (R) for receiving without entering password even if unit (S)'s data are protected by password.

Remarks:

1. The units should be the same models because these units should have the same memory capacity and functions.
2. Press **ВЫХОД** button if you abort any operation.

PROCEDURE

① Connect two units using the SB-62 cable as described above.

② Turn both units power on.

③ Press **START** button on the unit (R)'s rear panel using a thin, pointed object.
Press **Д**, then **ИСП.** button (RESETTING OF THE UNIT (R)).

④ Pressing **ДОМ-МИР** button once or twice, displays **МОСКВА** home time message, then press **ФУНК.** and then **1** (Time set) button with both units.

⑤ Set the time to **ФЕВРАЛЬ** 3, 1901 (2/3/1901) using **->** button and numeral buttons with both units (press **->**, **->**, **0**, **2**, **->**, **0**, **3**, **->**, **1**, **9**, **0**, **1** and **ИСП.** button.).

⑥ Press **КАЛЕНДАРЬ**, **ФУНК.**, and then **4** (**ОТПРАВИТЬ** (**ВЫХОДНЫЕ**)) button with the units (S).

⑦ Press **СМЕНА**, **ФУНК.**, **4** (**ПОЛУЧИТЬ ДАННЫЕ**) and then **Д** button with the unit (R).

⑧ Pressing **Д** button with the unit (S), the data transmission from the unit (S) to the unit (R) starts to perform.
(After this transmission, **МОСКВА** home time message appears with unit (R). Wait for a while until this message appears.)

⑨ After the transmission, don't turn the unit (R)'s power off and confirm to exist the transferred data in the unit (R) also.

6. OPERATION CHECK

REMARKS:

1. **Executing this check clears the data stored in the Digital Diary. If you do not want them to be cleared, you should store them in another Digital Diary (SF-5580RS/-5780RS) referring to the "5. Data communications" in this manual.**
2. **You cannot put out the light from EL while executing this check.**

■ LCD CHECK

① Press **S T A R T** button on the rear panel while pressing **И С П.** button on the front panel.
LCD display appears as shown right.
figure-1

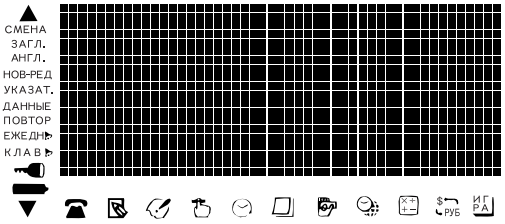


figure-1

② Press **И С П.** button four times.
LCD display appears as shown right.
figure-2

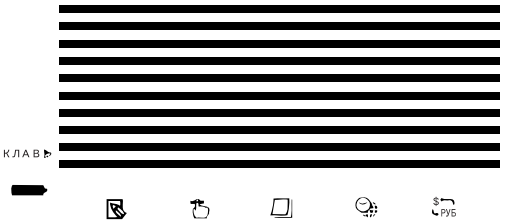


figure-2

③ Then press **И С П.** button.
LCD display appears as shown right.
figure-3

④ Press **И С П.** button again.
LCD display appears as shown in the **figure-1** again.

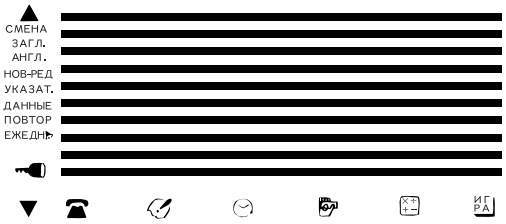


figure-3

■ ROM CHECK

⑤ Wait 4 to 5 seconds, then press **И С П.** button.

LCD display ⟶ **ROM TEST ROM OK**

■ RAM CHECK

⑥ Press **И С П.** button.

LCD display ⟶ **ROM TEST ROM OK**
RAM TEST

⑦ Wait about 45 to 50 seconds.

In the case of SF-5580RS.

LCD display → **ROM TEST ROM OK**
RAM TEST 1 2 8 K OK

In the case of SF-5780RS.

LCD display → **ROM TEST ROM OK**
RAM TEST 1 2 8 K OK
2ND
RAM TEST 1 2 8 K OK

■ KEY CHECK

⑧ Press **И С П.** button.

LCD display → **KEY TEST**

⑨ After pressing any button, LCD displays a letter or a number correspond to its button. Check all keys (buttons) in this way except to **И С П.** button.

■ COMMUNICATION CHECK

⑩ Press **И С П.** button.

LCD display → **1 COMM 2 ECHO**

⑪ Prepare another unit, then execute the procedure described above ① ~ ⑩.

Another unit's
LCD display → **1 COMM 2 ECHO**

⑫ Connect two units using the SB-62 cable as shown in the **"5. DATA COMMUNICATIONS"** (page 10) in this manual.

⑬ Press **1** button on a unit (A) while pressing **2** button on another unit (B).

Unit (A)'s
LCD display → **1 COMM 2 ECHO OK**

Unit (B)'s
LCD display → **2 ECHO OK**

If this **OK** was displayed, another unit (B) transmitted data to a unit (A).

⑭ Pressing **В Ы Х О Д** buttons on the both units, regain to the condition described in the item ⑫. LCD displays on the both units indicates the same display as shown in the item ⑪.

⑮ Next, try to transmit data from another unit (B) to a unit (A).

⑯ Regain to the condition described in the item ⑫ using **В Ы Х О Д** button.

⑰ Pressing **В К Л-В Ы К Л** button twice, the following message appears.

ВПЕРВЫЕ ЛИ ВЫ
РАБОТАЕТЕ С НОВЫМ
АППАРАТОМ? (Д/Н)

⑱ Pressing **Д** button, the following message appears.

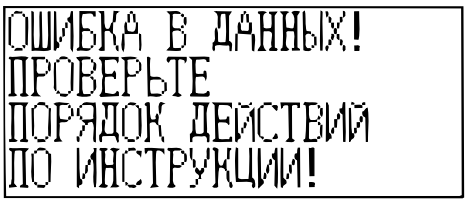
ОЧИСТИТЬ ПАМЯТЬ
И ПОДГОТОВИТЬ
АППАРАТ К РАБОТЕ?
ДА (ИСП.)/НЕТ ВЫХОД

⑲ Pressing **И С П.** button. [Doing so, the data stored in this Digital Diary are deleted]

7. ERROR MESSAGES

■ Data Error Message

The data error message appears whenever the Digital Diary's internal check discovers a problem with data stored in memory.



Appearance of the data error message indicates that you must perform the all-reset procedure to correct the problem. Start out with the procedure under "**To start the all-reset operation**" on page 6, and continue with the procedure under "When to press **Д** for "Yes" on page 6".

Important!

- Even though you are not using the unit for the first time, you must press **Д** (for "Yes") when the unit asks "ВПЕРВЫЕ ЛИ ВЫ РАБОТАЕТЕ С НОВЫМ АППАРАТОМ? (Д/Н)" in order to reset the unit after a data error occurs.

If you still have trouble after trying the **S T A R T** operation, you may have a hardware problem.

■ Message Table

Message	Meaning	Action
НЕ НАЙДЕНО! ДЛЯ ВЫХОДА НАЖМИТЕ ВЫХОД. (NOT FOUND! PRESS **В Ы Х О Д** TO QUIT.)	Data specified in search operation does not exist in memory.	Change specification or cancel search.
НЕ ХВАТАЕТ ПАМЯТИ, НАЖМИТЕ КАКУЮ-НИБУДЬ КЛАВИШУ. (MEMORY FULL, PRESS ANY KEY.)	No more room in memory for storage of data.	Delete unnecessary data items from memory.
ВРЕМЯ СИГНАЛА УЖЕ ЗАНЯТО! (ALARM TIME COINCIDENT!)	Attempt to set an alarm that is already used for another entry.	Set a different alarm time or change the existing alarm time.
ВРЕМЯ СИГНАЛА УЖЕ ПРОШЛО! (ALARM TIME ALREADY PASSED!)	Attempt to set an alarm for a time or data that is already passed.	Set a different alarm time.
ОШИБКА В ПЕРЕДАЧЕ ДАННЫХ, НАЖМИТЕ КАКУЮ-НИБУДЬ КЛАВИШУ. (DATA COMM. ERROR, PRESS ANY KEY)	Error during data communications.	Cancel the operation and try again.

Message	Meaning	Action
ВПЕРВЫЕ ЛИ ВЫ РАБОТАЕТЕ **С** НОВЫМ АППАРАТОМ? (Д/Н) (ARE YOU USING A NEW UNIT FOR THE FIRST TIME? (Y/N))	The reset procedure has started.	See page 6.
ОЧИСТИТЬ ПАМЯТЬ И ПОДГОТОВИТЬ АППАРАТ К РАБОТЕ? ДА (ИСП.)/НЕТ (ВЫХОД) (CLEAR MEMORY AND SET UP THE UNIT FOR OPERATION? YES (**И С П.**)/ NO (**В Ы Х О Д**))	The reset procedure is in progress.	See page 6.
ОШИБКА В ДАННЫХ! ПРОВЕРЬТЕ ПОРЯДОК ДЕЙСТВИЙ ПО ИНСТРУКЦИИ! (DATA ERROR! CHECK YOUR OWNER'S MANUAL FOR PROCEDURE!)	Data corrupted by strong impact, electrostatic charge, etc..	
ГЛАВНЫЕ БАТАРЕИ СЕЛИ! ЗАМЕНИТЕ! АППАРАТ БОЛЬШЕ НЕ ВКЛЮЧИТСЯ! (MAIN BATTERIES WEAK! REPLACE THEM! UNIT WILL NOT TURN ON AGAIN!)	The main batteries are getting weak.	Replace main batteries immediately (page 8).

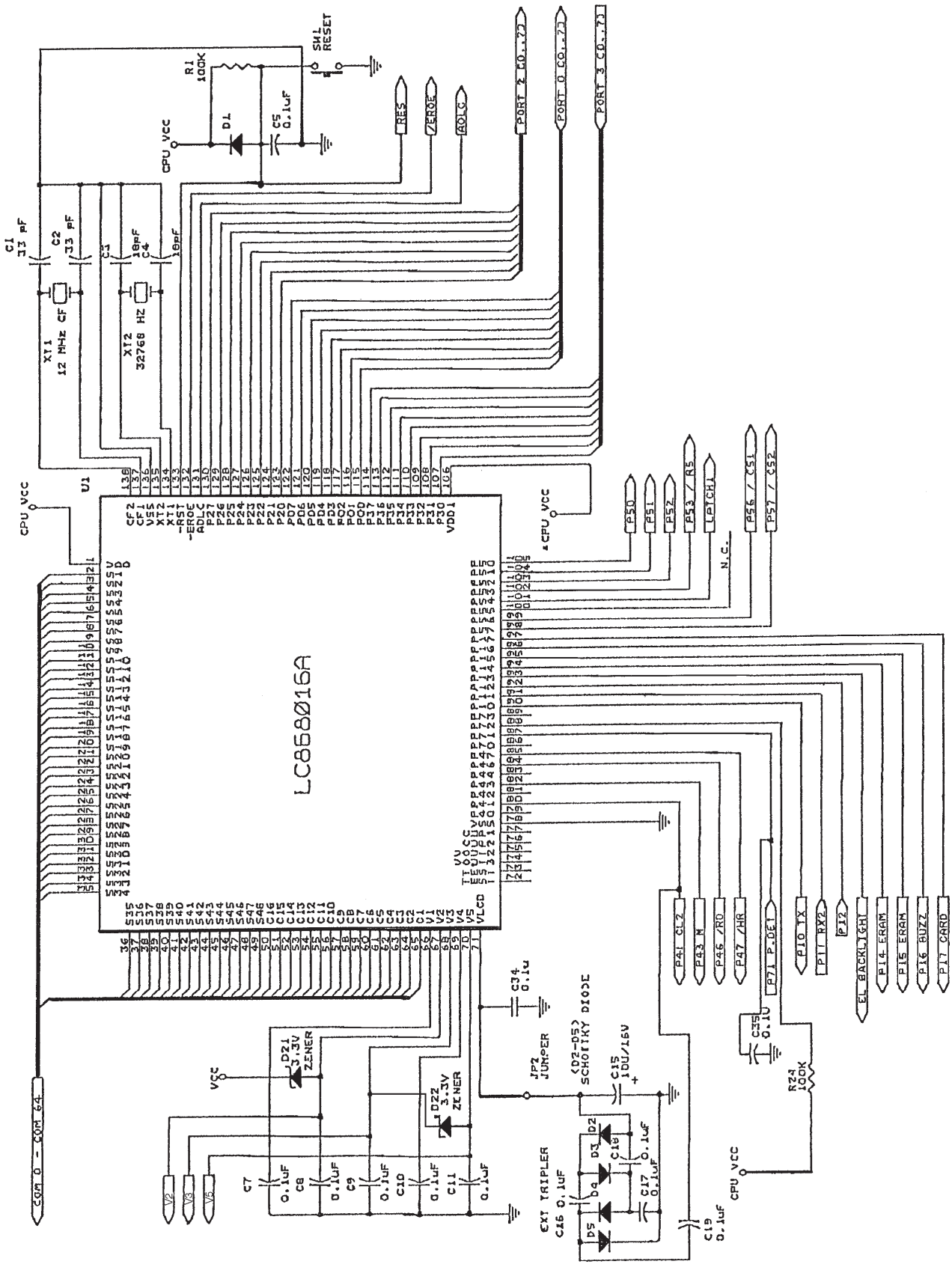
8. LSI PIN FUNCTION

CPU (LC868016A): U1

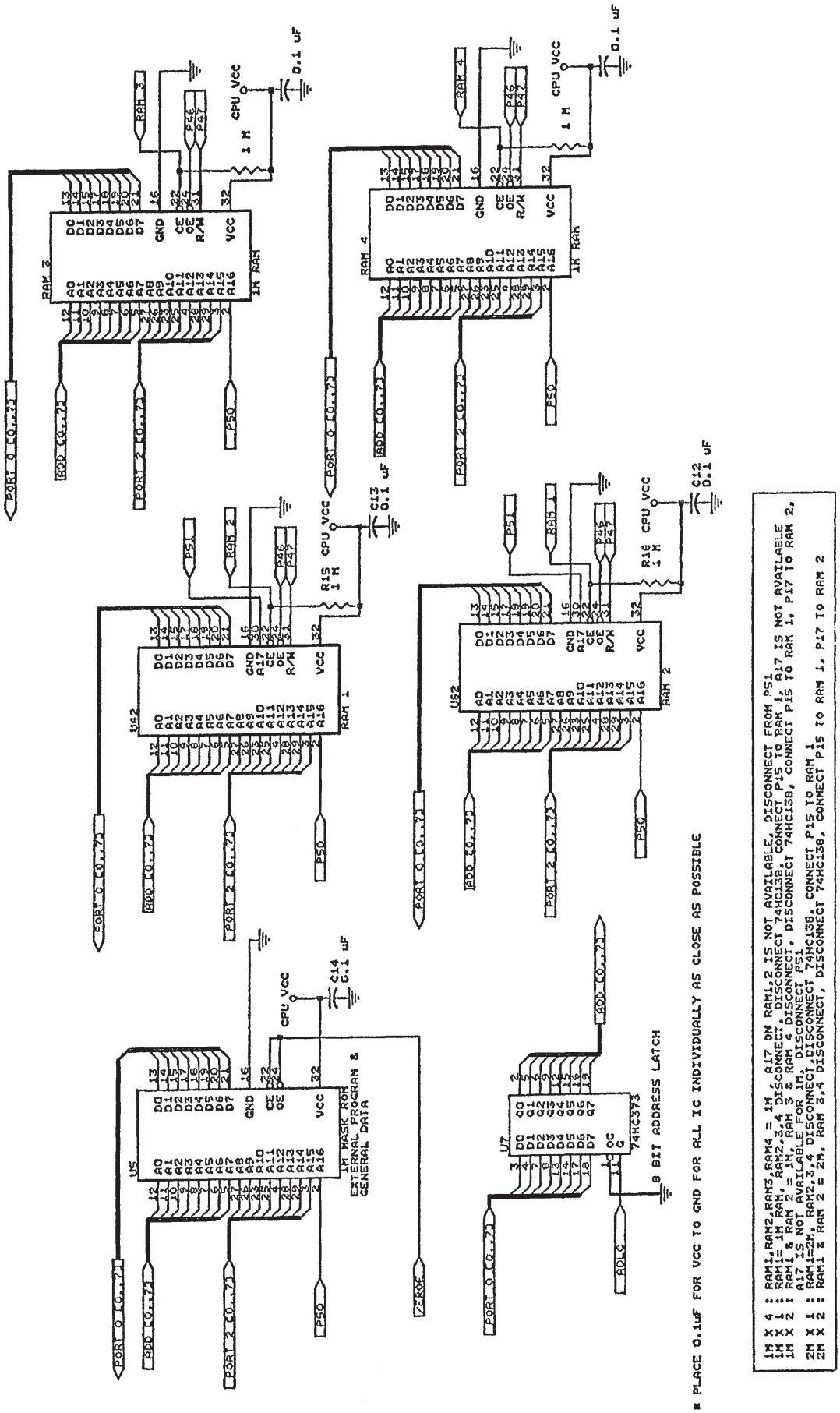
Pin No.	Name	I/O	Function
1	VDD	I	Power supply for this CPU
2~65	S1~48,C1~16	O	Common signals to LCD
66	V1	O	Bias power supply to LCD
67	V2	O	
68	V3	O	
69	V4	O	
70	V5	O	
71	VLCD	O	Power supply to LCD
78	VSS	—	Ground for this CPU
80	P41	O	Clock for LCD driver LSI(U2, U3:LC868900)
82	P43	O	Signal to LCD driver LSI(U2, U3:LC868900)(AC voltage is supplied to LCD by this signal.)
84	P46	O	Read signal to RAM(U42, U62) and LCD driver LSI(U2, U3:LC868900)
85	P47	O	Write signal to RAM(U42, U62) and LCD driver LSI(U2, U3:LC868900)
87	P71	I	Detection of low battery voltage(=2.5V) from IC(U2:S80725)
90	P10	O	Serial data output to another unit or a personal computer
91	P11	I	Serial data input from another unit or a personal computer
93	P13	O	Control signal to power supply IC(DC/AC inverter IC) for EL (H: EL-OFF/L: EL-ON)
96	P16	O	Control signal for buzzer(H: buzzer-ON/L: buzzer-OFF)
98	P57	O	Chip select to LCD driver LSI(U3:LC868900)
99	P56	O	Chip select to LCD driver LSI(U2:LC868900)
101	P54	O	Clock to IC(U8:74HC273) for the keyboard data latch
102	P53	O	Control signal to LCD driver LSI(U2, U3:LC868900)
104	P51	O	Address bus to RAM(U42, U62)
105	P50	O	Address bus to ROM(U5)
106	VDD1	O	Power supply for this CPU
107	P30	I	Signals for key assign from keyboard
108	P31	I	
109	P32	I	
110	P33	I	
111	P34	I	
112	P35	I	
113	P36	I	
114	P37	I	
115	P00	I/O	Address bus to the address data latch IC(U7:74HC373)
116	P01	I/O	
117	P02	I/O	
118	P03	I/O	
119	P04	I/O	
120	P05	I/O	
121	P06	I/O	
122	P07	I/O	
123	P20	O	Address bus to ROM(U5) and RAM(U42, U62)
124	P21	O	
125	P22	O	
126	P23	O	
127	P24	O	
128	P25	O	
129	P26	O	
130	P27	O	
131	ADLC	O	Control signal to the address data latch IC(U7:74HC373)
132	-EROE	O	Chip select to ROM(U5)
133	-RST	I	Reset signal for this CPU and LCD driver LSI(U2, U3:LC868900)
134	XT1	I	Timer clock for this CPU
135	XT2	O	
136	VSS	—	Ground for this CPU
137	CF1	I	Main clock for this CPU
138	CF2	O	

9. SCHEMATIC DIAGRAMS

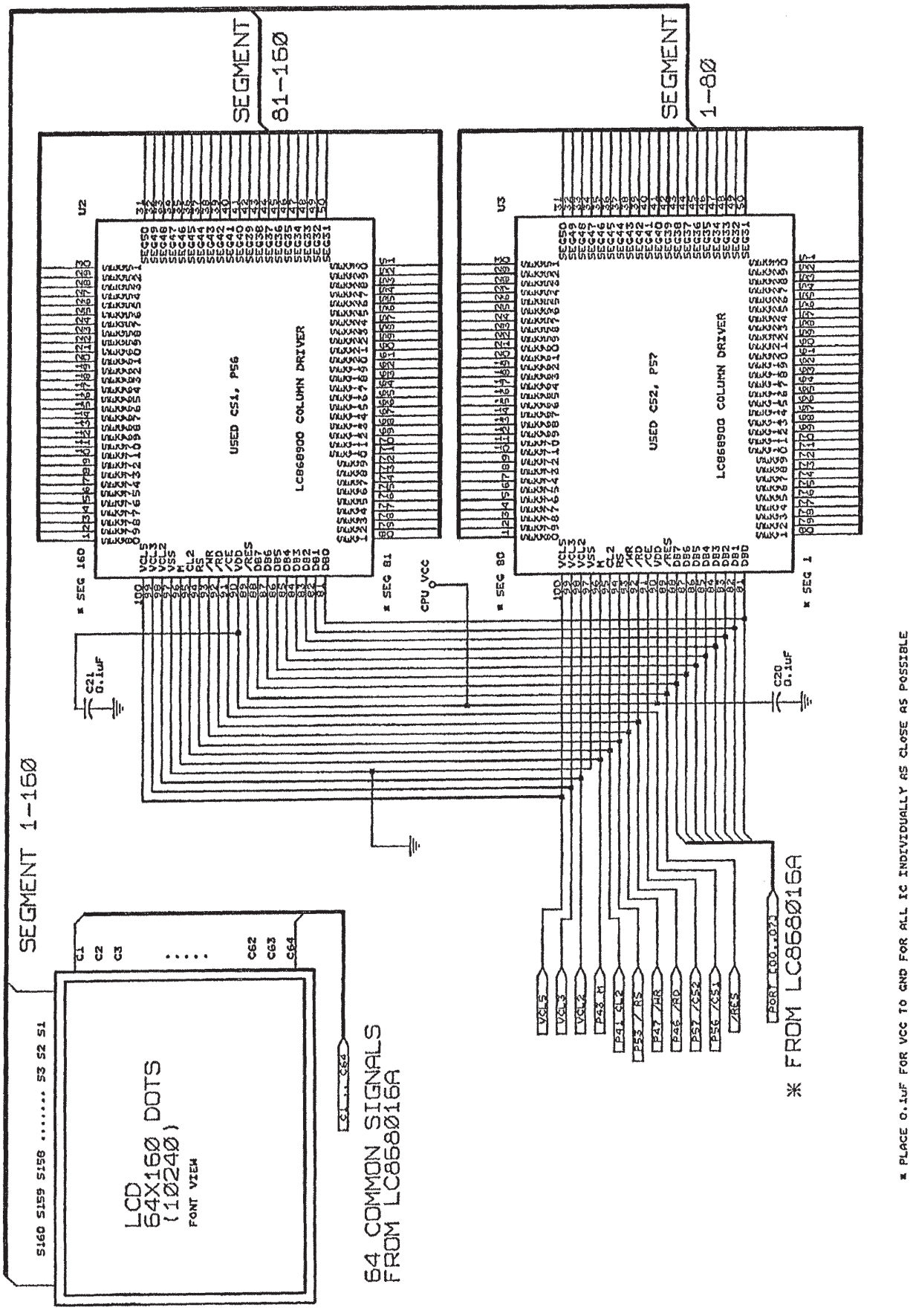
9-1. Main PCB ASS'Y (A342054*13)-(1/4)



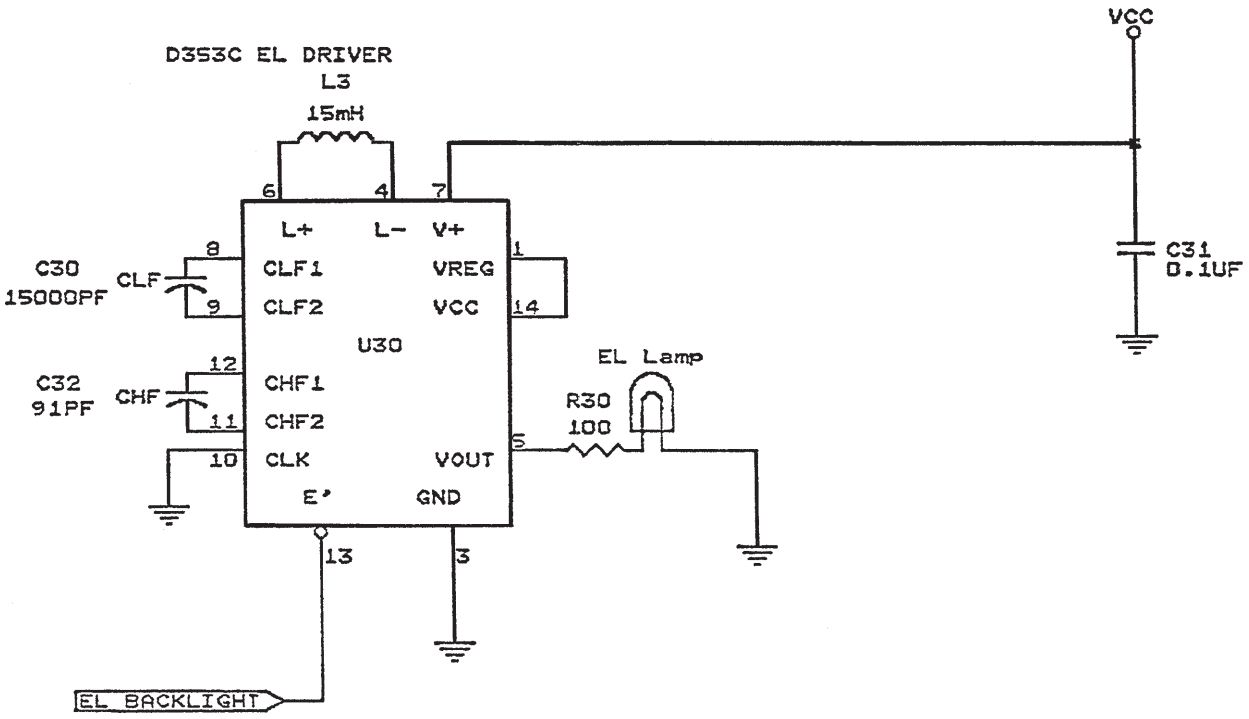
9-1. Main PCB ASS'Y (A342054*13)-(2/4)


RAM 3
RAM 4
RAM 2
RAM 1
U5
U7
U42
U52
1M RAM
1M MASK ROM
EXTERNAL PROGRAM &
GENERAL DATA
8 BIT ADDRESS LATCH
74HC373
CPU VCC
0.1 uF
1 M
PORT 0 [0..7]
PORT 2 [0..7]
ADD [0..7]
P50
P51
P46
P47
ZEROE
ROE
* PLACE 0.1uF FOR VCC TO GND FOR ALL IC INDIVIDUALLY AS CLOSE AS POSSIBLE
1M X 4 : RAM1,RAM2,RAM3,RAM4 = 1M , A17 ON RAM1,2 IS NOT AVAILABLE, DISCONNECT FROM PS1
1M X 1 : RAM1= 1M RAM, RAM2,3,4 DISCONNECT, DISCONNECT 74HC138, CONNECT P15 TO RAM 1, A17 IS NOT AVAILABLE
1M X 2 : RAM1 & RAM 2 = 1M, RAM 3 & RAM 4 DISCONNECT, DISCONNECT 74HC138, CONNECT P15 TO RAM 1, P17 TO RAM 2,
A17 IS NOT AVAILABLE FOR 1M, DISCONNECT PS1
2M X 1 : RAM1=2M, RAM2,3,4 DISCONNECT,DISCONNECT 74HC138, CONNECT P15 TO RAM 1
2M X 2 : RAM1 & RAM 2 = 2M, RAM 3,4 DISCONNECT, DISCONNECT 74HC138, CONNECT P15 TO RAM 1, P17 TO RAM 2

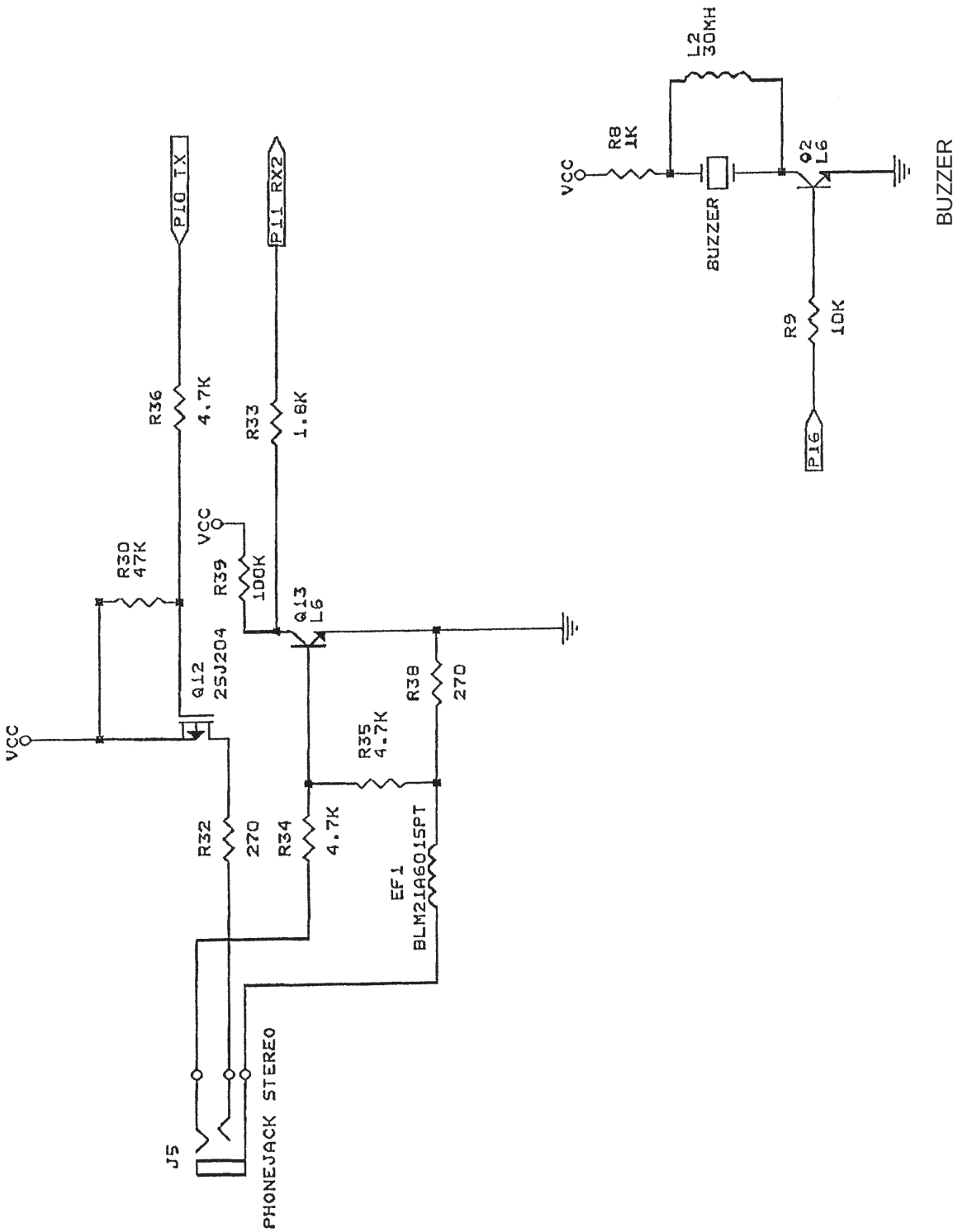
9-1. Main PCB ASS'Y (A342054*13)-(3/4)



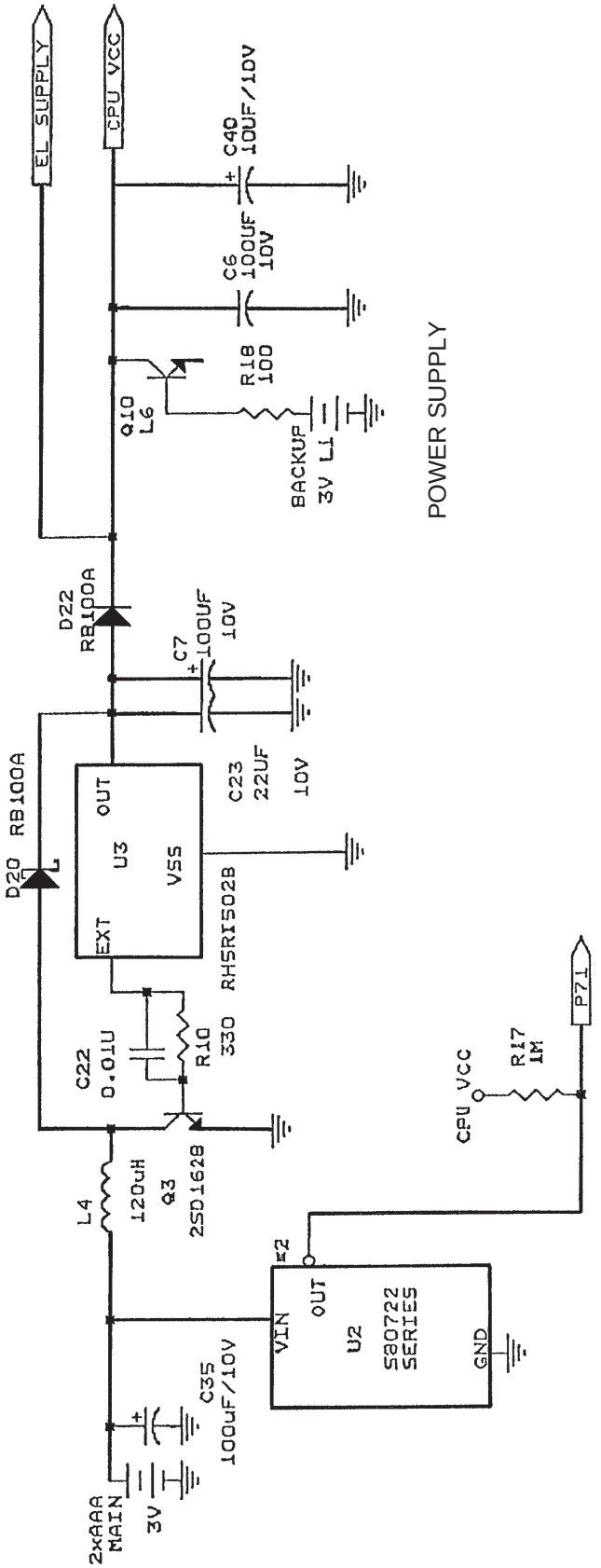
9-1. Main PCB ASS'Y (A342054*13)-(4/4)



9-2. Keyboard PCB ASS'Y (A342241*1)-(1/3)

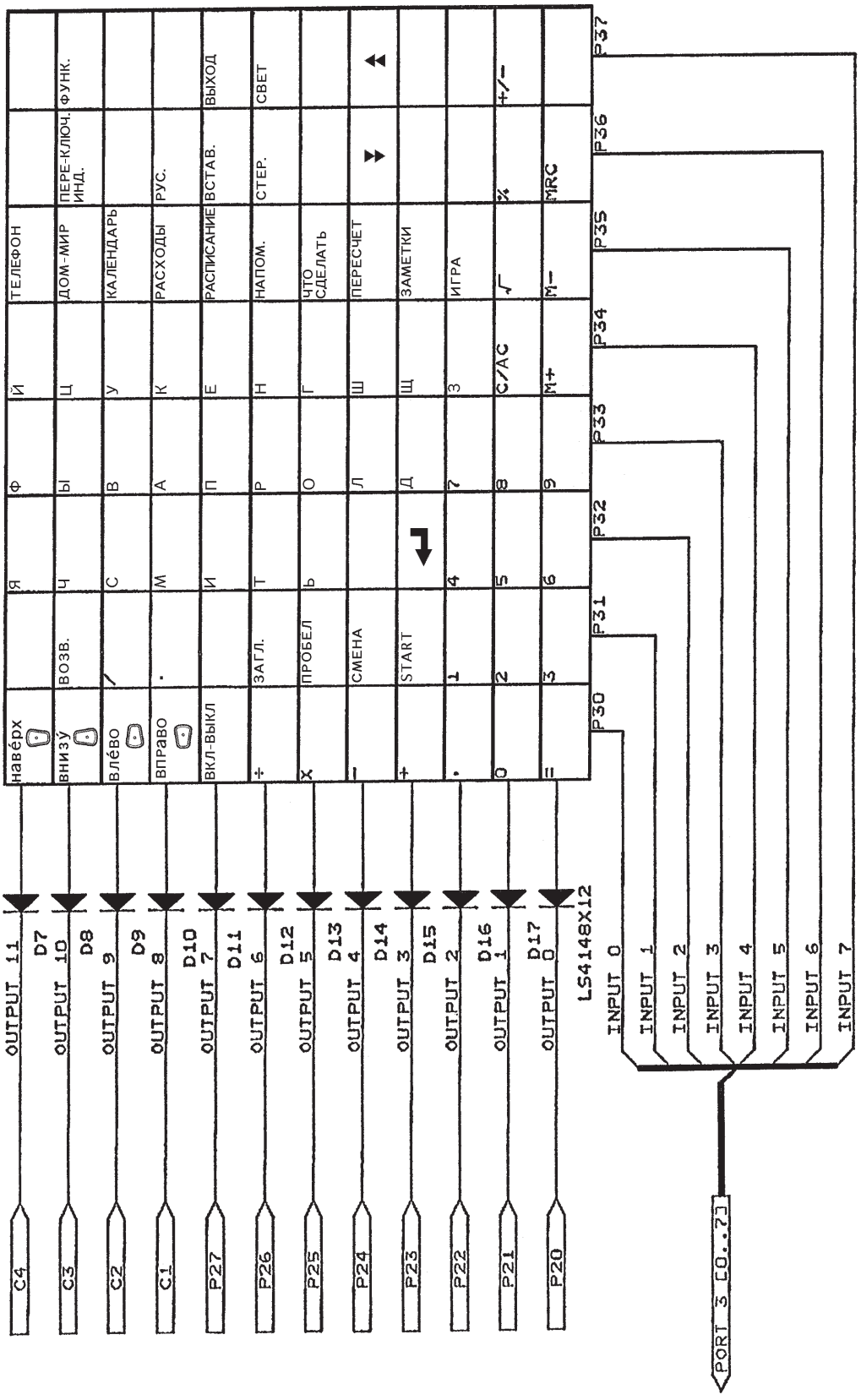


9-2. Keyboard PCB ASS'Y (A342241*1)-(2/3)



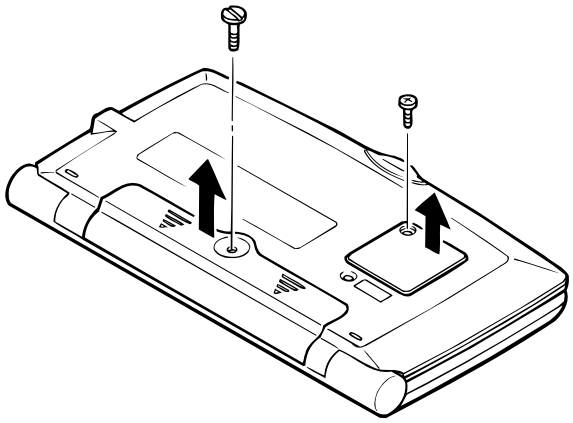
*2 ACTIVE LOW OPEN DRAIN LOW POWER DETECTOR FOR 2.2V
*3 TANTALUM ELECTROLYTIC CAPACITOR

9-2. Keyboard PCB ASS'Y (A342241*1)-(3/3)

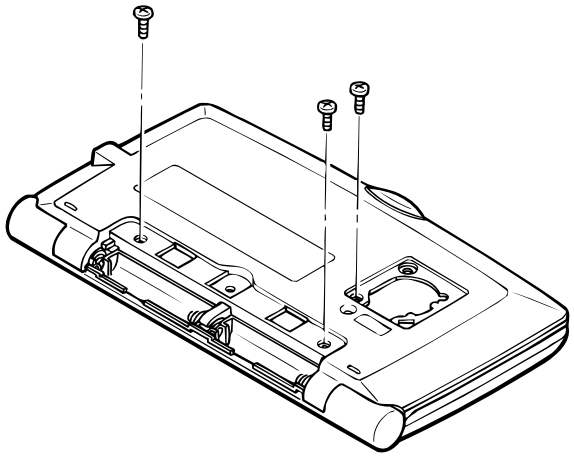


10. DISASSEMBLY PROCEDURE

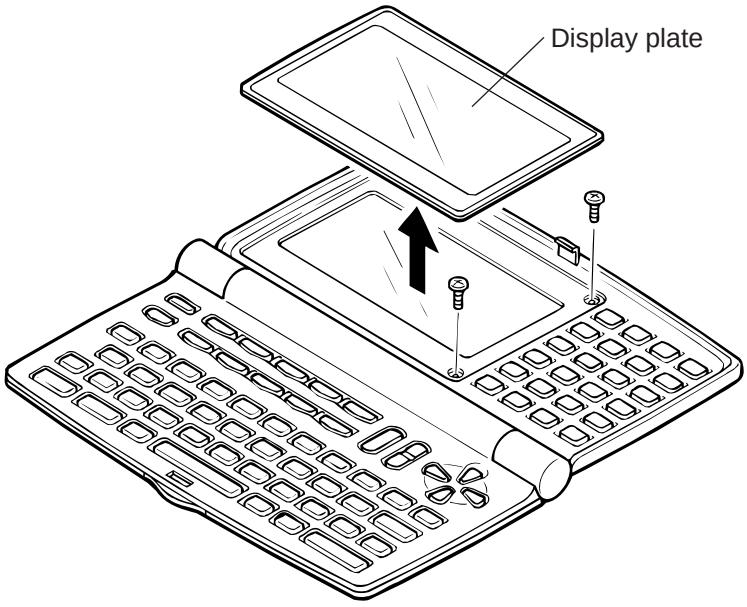
① Remove two screws then remove the battery cover.



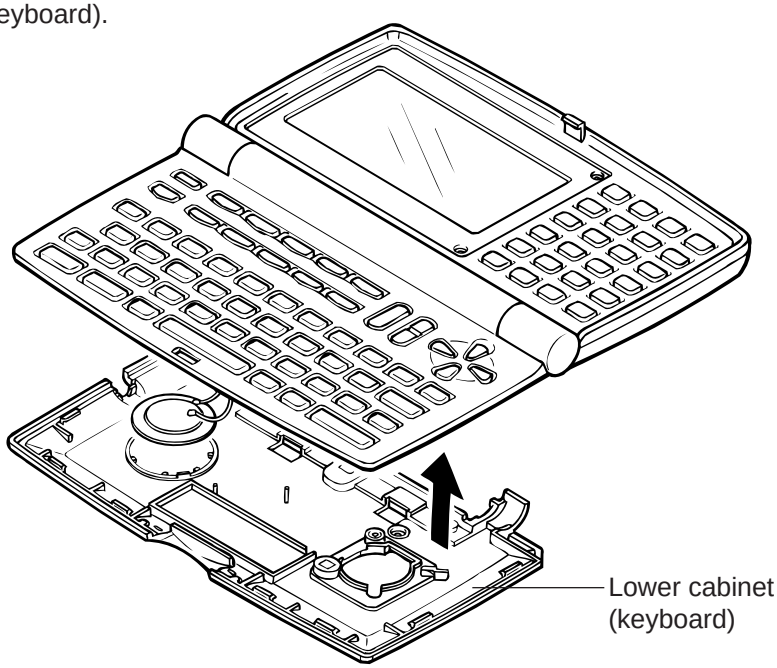
② Remove three screws.



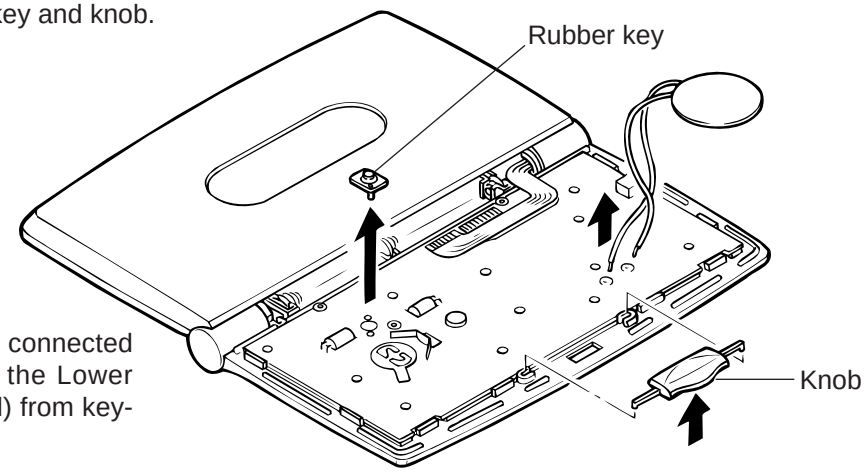
③ Open the unit and remove two screws behind the display plate.



④ Remove Lower cabinet (keyboard).

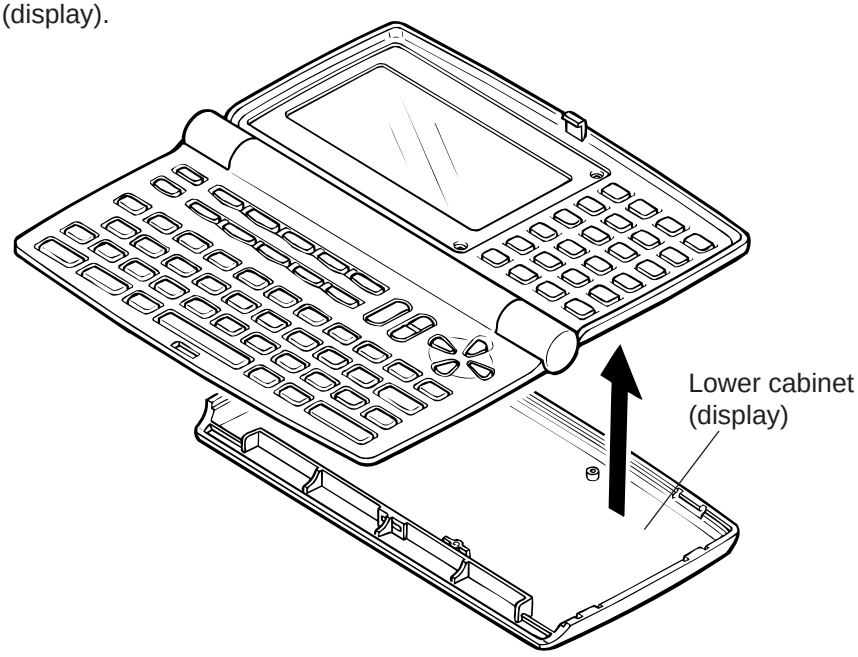


⑤ Remove Rubber key and knob.

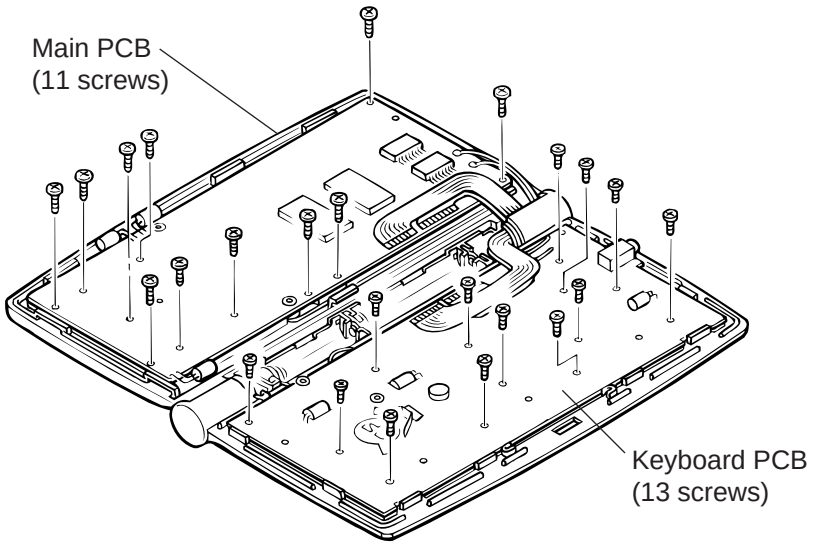


⑥ Desolder the wire connected to the buzzer on the Lower cabinet (keyboard) from keyboard PCB ass'y.

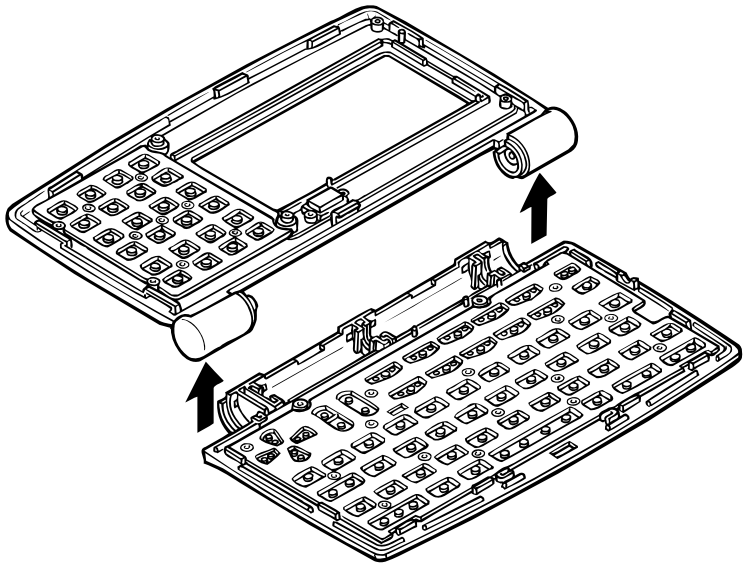
⑦ Remove Lower cabinet (display).



⑧ Remove screws on PCB shown below then remove PCB ass'y.

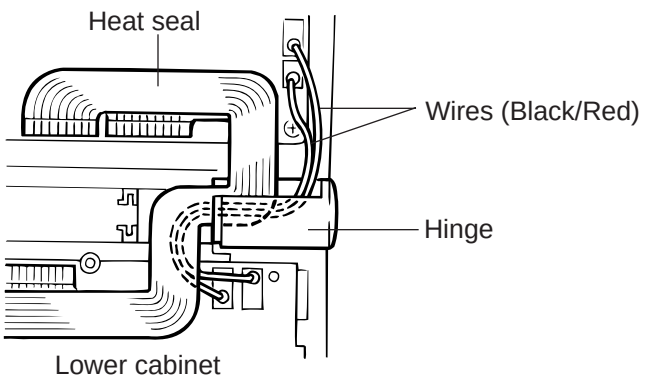


⑨ Separate upper cabinets.



Caution:

Heat seal and wires must be placed inside of the hinge in order for the Lower cabinet (keyboard) to fit into place.
If heat seal and wires are placed improperly, they are damaged.



11. PARTS LIST

N	Item	Code No.	Parts Name	Specification	Applicable	Q	R
	PCB ASSY(A342054)						
	* There are two type of PCB ASSYs in SF-5780RS--A type & B type.						
	U62	2012 5520	LSI/S-RAM	CMO-02-128NC-01	SF-5580RS	1	B
	* U42, U62	2012 5520	LSI/S-RAM	CMO-02-128NC-01	SF-5780RS (A-type)	2	B
	* U62	2012 5519	LSI/S-RAM	CMO-02-256SN-01	SF-5780RS (B-type)	1	B
	U7	2114 5771	IC/TTL	CMO-09-HC373	Common	1	C
	U8	2114 5770	IC/TTL	CMO-09-HC273	Common	1	C
	U12	2114 5827	IC	CMO-13-D353C-01	Common	1	C
	XT1	2590 2691	OSCILLATOR/CRYSTAL	RER-01-12	Common	1	C
	XT2	2590 2690	OSCILLATOR/CRYSTAL	QUA-02-26	Common	1	C
	D2~D5	2390 3031	DIODE/SCHOTTKY	DIO-03-RB500V	Common	4	C
	D6~D17	2390 3005	DIODE	DIO-01-LS4148	Common	12	C
	D21, D22	2390 3030	DIODE/ZENER	DIO-02-UDZ3.3B	Common	2	C
	L3	6420 1950	COIL/CHOKE	C01-02-4615	Common	1	C
	PCB ASSY(A342241)						
	U2	2114 5828	IC/MOS	CMO-14-5VL22AA	Common	1	C
	U3	3065 0712	CONVERTOR	CMO-10-R1502B	Common	1	C
	Q2, Q10	2259 2713	TRNSISTOR	TRR-01-NPNL6	Common	2	C
	Q3	2253 0711	TRNSISTOR	TRR-01-2SD1628G	Common	1	C
	D1	2390 3005	DIODE	DIO-01-LS4148	Common	1	C
	D20, D22	2390 3032	DIODE/SCHOTTKY	DIO-03-RB100A	Common	2	C
	L2	6419 6430	COIL/CHOKE	COI-02-4630	Common	1	C
	L4	3122 3509	INDUCTOR	IND-01-120	Common	1	C
	1	3502 2225	JACK	JCK-01-1169	Common	1	C
	2	6419 6460	SPRING/BATTERY	BAC-01-988+	Common	1	C
	3	6419 6470	SPRING/BATTERY	BAC-01-988-	Common	1	C
	PCB ASSEMBLY						
N	4	6422 4450	PCB ASSY	A342054A*13 HK	SF-5580RS	1	B
N	4	6422 4290	PCB ASSY	A342054A*14 HK	SF-5780RS	1	B
N	5	6422 4310	PCB ASSY	A342241*1 HK	Common	1	B
	6	5610 9420	HEAT SEAL	HES-03-ZX876A	Common	1	B
	7	5610 9430	HEAT SEAL	HES-03-ZX876B	Common	1	B
	8	5610 9440	HEAT SEAL	HES-01-161055	Common	1	B
	9	3502 2224	HEAT SEAL	HES-01-064065	Common	1	B
N	10	3335 6730	LCD/FSTN	LCD-03-ZX460	Common	1	B
	11	3312 0057	ELECTRO LUMINESCENCE	LAM-03-ZX876	Common	1	B
	COMPONENTS						
N	12	6422 4400	RUBBER/KEY(24-KEY)	KEY-04-ZX460A-0	Common	1	C
N	13	6422 4410	CASE/UPPER DISPLAY	HOU-04-ZX876-04	Common	1	X
	14	6419 6240	RUBBER/CONTACT DUMMY	CON-05-507327	Common	2	X
N	15	6422 4420	CASE/LOWER KEYBOARD	HOU-02-ZX460-00	Common	1	X
N	16	6422 4430	CASE/UPPER KEYBOARD	HOU-01-ZX460-00	Common	1	C
	17	6419 6340	HINGE RUBBER	HIN-01-ZX876	Common	1	X
N	18	6422 4440	RUBBER/KEY(63-KEY)	KEY-04-ZX460B-0	Common	1	C
	19	6419 6400	NUT	NUT-02-M1.7	Common	2	X
	20	6421 4140	SPRING/BATTERY	BAC-01-ZX877-	Common	1	X
	21	6421 4150	SPRING/BATTERY	BAC-01-ZX877+/-	Common	1	X
	22	6421 4160	SPRING/BATTERY	BAC-01-ZX877+	Common	1	X
	23	6419 6080	RUBBER/KEY	KEY-03-U100	Common	1	C
	24	6419 6140	KNOB	LOC-01-ZX876-02	Common	1	C
	25	3122 3508	BUZZER	BUZ-02-27	Common	1	X

Notes: N – New parts
R – Rank
Q – Quantity used per unit

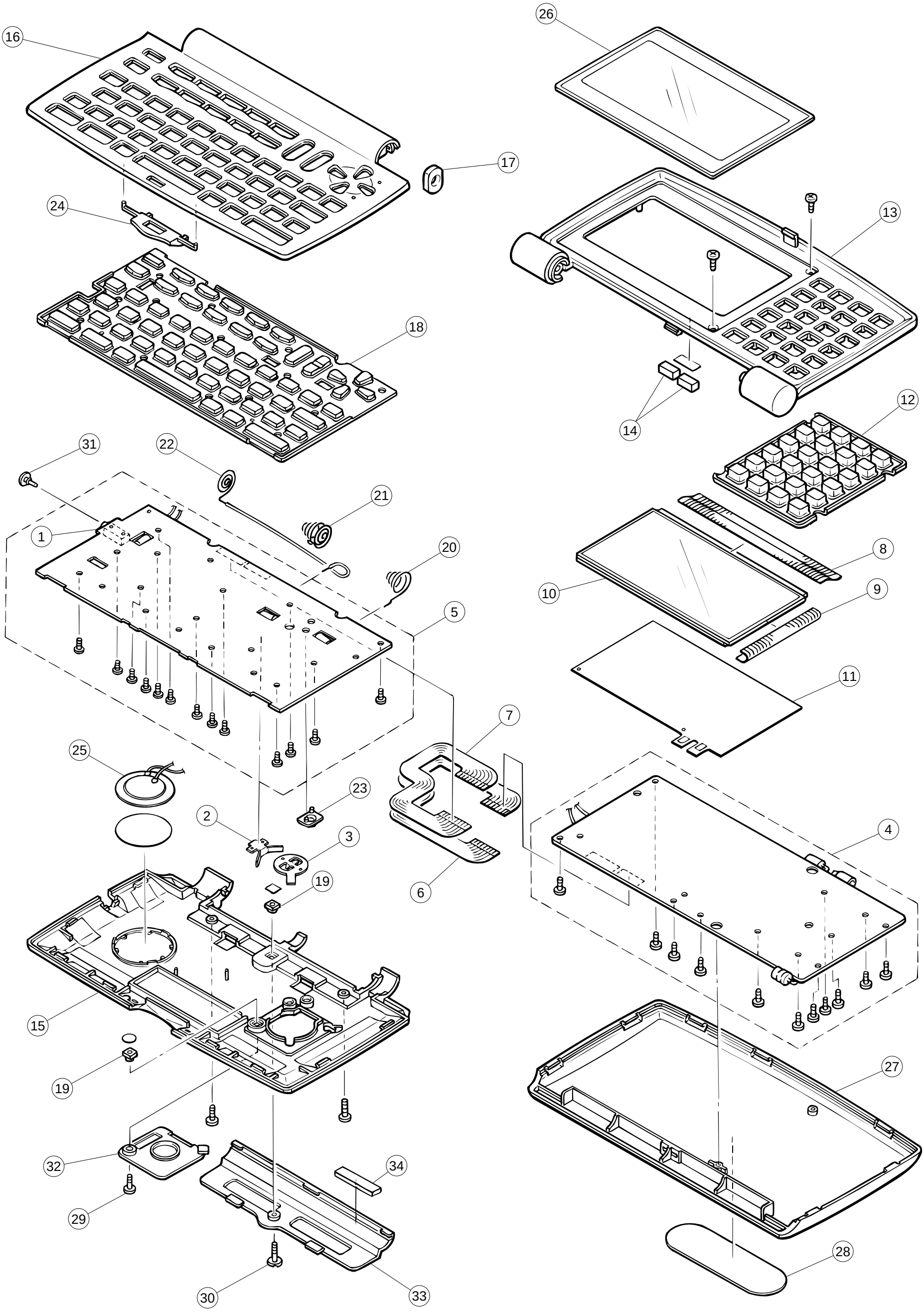
R – A : Essential
B : Stock recommended
C : Others
X : No stock recommended

N	Item	Code No.	Parts Name	Specification	Applicable	Q	R
N	26	3851 2096	PANEL/DISPLAY	LEN-01-ZX460-00	SF-5580RS	1	B
N	26	3851 2097	PANEL/DISPLAY	LEN-01-ZX460-01	SF-5780RS	1	B
N	27	6422 4320	CASE/LOWE DISPLAY	HOU-03-ZX876-04	Common	1	C
N	28	6422 4330	PLATE	INL-01-ZX460-00	SF-5580RS	1	C
N	28	6422 4340	PLATE	INL-01-ZX460-01	SF-5780RS	1	C
	29	6419 5820	SCREW	SCR-01-1740PMTB	Common	1	C
	30	6419 5840	SCREW	SCR-01-1740CMT	Common	1	C
	31	6419 5850	COVER/PHONE JACK	JCK-02-ZX876	Common	1	C
N	32	6422 4380	COVER/BATTERY	BAD-02-ZX876-04	SF-5580RS	1	C
N	33	6422 4390	COVER/BATTERY	BAD-01-ZX876-04	SF-5780RS	1	C
	34	6421 4090	CUSHION	SPO-01-301005	Common	1	C

Notes: N – New parts
R – Rank
Q – Quantity used per unit

R – A : Essential
B : Stock recommended
C : Others
X : No stock recommended

12. EXPLODED VIEW



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